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only were of mature size. In many positions they were so numerous, that they appeared like rolling pebbles, as they were exposed by the breaking of the surf on the shore, and as they rapidly followed the receding waves, and buried themselves in the sand. The sand, on being dug up, was found to be as full of them as an ordinary plum-pudding is of currants.

Below Ocean Grove, near low-tide mark, the Lady Crab, *Platyonichus ocellatus*, was frequent. Above Ocean Grove, and above the high-tide line, in the dry sand, and in the bank covered with Sea-sand Grass, *Calamagrostis arenaria*, the burrows of the Sand Crab, *Ocypoda arenaria*, were numerous, and the animals frequent. One of these crabs, brought home after eight days, was still in good condition without once having been in water. It appeared to be fond of meat of any kind, and had been fed on beef and oysters.

Supplementary Note on the Aeronautic Flight of Spiders.—Rev. H. C. McCook remarked that, in the Proceedings of the Academy for 1877, pp. 308–312, would be found the result of some observations made by him upon the ballooning habits of spiders, which he was now able to supplement by several important items. The facts which he had to detail were observed Oct. 1, 1878, upon the farm of Mr. Geo. B. Lownes, about ten miles from Philadelphia, in Delaware County; and they would best be presented by giving the record made in his note-book of the flight of several spiders. The day was warm and bright, and a gentle breeze was blowing throughout the day, but not steadily from any quarter.

No. 1. A young Lycosid, apparently *Lycosa scutulata*, Hentz. On the side of a fence-post opposite to the wind, face downward, abdomen elevated, the body raised by the legs. Followed it after flight for 200 feet; it rose as high as 30 feet before it was lost sight of. Its flight was across a wide meadow, and promised to be a long one. Several threads were streaming out and up behind and before the spider.

No. 2. A saltigrade, probably the young of Hentz's *Attus vittatus*, on the side of a fence-board opposite the wind. Its legs elevated, raising up the body, abdomen turned well nigh straight upward, long thread floating out and up from the spinnerets; it walked several inches upward along the rail, keeping its body in the same stilted position, the thread meanwhile flying, and then was off, rather slowly, and about on a line with the face. There was one small thread in front and one (or more) behind. It moved straight forward for about 50 feet, and then rose suddenly upward.

No. 3. *Lycosa*, observed at 2 P. M. Actions as No. 1. Distinctly saw one thread before and apparently two behind; the head was toward the wind. After 15 feet it rose up and out of sight, a long stretch of meadow before it. Once before it mounted it lifted up one hind foot as though holding on to the stay thread.

No. 4. *Lycosa*. Followed for 40 to 50 feet; one thread apparently; in front a ray of several fine diverging threads floating behind from the spinnerets. Its back was toward the ground. Its abdomen seemed, but could not be certainly determined, to be riding in front. The body of the spider was thus at the apex of the angle formed by the fore and hind threads, the free points of which were quite far apart. The balloon struck a tree, and part of it went on, the spider apparently staying on the tree.

No. 5. *Lycosa*. The abdomen behind, *i. e.*, toward the point of departure. Several threads floating from it, one in front; feet gathered together, but, apparently, the back upward. It crossed the highway, and a carriage just then passing interfered with the observation.

No. 6. The head riding in front, back down—this is absolutely certain. A four-shaped steamer of threads thrown out before mounting. At first it moved off slowly, soon climbed up the fore thread, the “bow,” so to speak; further on it climbed up the pencil of rays for several inches. The balloon, when lost sight of, had at least three separate pencil rays visible. It was followed 100 feet before it rose out of sight.

No. 7. *Lycosa*. Back down; sailed sidewise part of the time; head forward apparently afterward.

Many of the aeronauts noticed first turned the elevated abdomen to various points, as though testing the direction of the wind.

Most of the points noted in the previous communication were confirmed, and those, together with these now presented, seem to make quite complete the mode of ballooning, at least among the Citigrade, and perhaps also the Saltigrade Spiders. The whole process may be briefly given as follows: 1. The spider seeks a high position, as the top of a fence post, as the point of ascent; 2. The abdomen is elevated to as nearly a right angle with the cephalothorax as may be; 3. A *pencil of threads* is issued from the spinnerets, the face being meanwhile turned to various points until it looks in the direction of the wind; 4. The legs are stretched upward, thus raising the body aloft; 5. They gradually incline in the direction of the breeze, the joints straighten out, the legs sink forward and down till the first pair are almost on the level with the post, the whole attitude of the animal being that of one resisting some force exerted from above; 6. Suddenly and simultaneously the eight claws are unloosed, and the spider mounts with a sharp bound, apparently; 7. and floats off with the back downward generally, but sometimes with this position reversed; 8. At first the abdomen seems to be in advance, but generally the body is turned so that the head rides in front; 9. The pencil of threads is caught apparently by the feet, and floats out in front, upon which, 10, sometimes the spider will climb upward, as though to adjust the centre of gravity; 11. Meanwhile a thread or pencil of rays issues from the spinnerets which floats

out behind, leaving the spider to ride in the angle of the two pencils, or 12, as it sometimes happens, of three, which diverge widely at the upper free ends; 13. The feet seem to be united by delicate filaments, which would serve to increase the buoyancy of the balloon; 14. The spider now is carried forward by the wind, riding for long distances in an open space, and often borne high upward upon ascending currents; 15. Its anchorage appears at times to be in its own volition, by drawing in with the claws the forward pencil and gathering it in a white roll within the mandibles; but, 16, most frequently the balloonist is stopped by striking against some elevated object or by the subsidence of the breeze; 17. A bright, warm day in October is commonly chosen for the ascent; and, 18, judging from the presence of a number of dry moults upon many posts, apparently of the same species of spider observed in flight, the animals had recently cast their skins. Of the above points, Nos. 3, 7, 9, 10, 11 in part, 12, 14 in part, 15 in part, and 18 are those which were determined by the last observation.

The object of this interesting habit seems to be the distribution of species.

Simian Characters in Negro Brains.—Dr. A. J. PARKER remarked that in a previous communication on the convolutions of the negro brain he had pointed out in one negro brain out of thirteen (then examined) the existence of an internal inferior pli de passage, which was as well developed as in any of the Simiadae. In that brain the convolution measured a quarter of an inch in width, and completely separated the parieto-occipital or internal perpendicular fissure from the calcarine, so that this region presented the same appearance as it does in the Simians. This convolution is uniformly present in the brain of all the Simiadae thus far described, except in *Ateles paniscus*, Huxley, and *Hylobates*, Bischoff. It had not been found in a fully developed condition in man before, and the absence of this small bridging convolution had been regarded by some anatomists as a distinguishing peculiarity of the human as compared with the anthropoid brain. Since then he had found this convolution present in another adult female negro brain. It was fully developed up to the surface, presented a superficial width of an eighth of an inch, and completely separated the parieto-occipital from the calcarine fissure. This convolution was, therefore, present in two cases out of thirty-three negro brains examined.

Turner describes (Edinburgh Medical Journal, 1866) a brain in which the fissure of Rolando joined the fissure of Sylvius completely, the small bridging convolution which usually separates them being completely absent. Pansch states that sometimes there is a superficial connection between these two fissures. Ecker says he has never met with such an instance. Dr. Parker